SOUTHERN FOREST PEST REPORTER

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Localized infestations of the southern pine beetle continue to appear in Alabama, and to a lesser extent in Mississippi. Several small groups of dead trees, observed from the air in southeast Texas, are being ground-checked as a precautionary measure. There are no indications of current activity of this species in Oklahoma, Arkansas, or Louisiana.

The black turpentine beetle continues to take its toll of scattered single and small groups of pines in many locations. It is definitely on the increase in areas of below-normal rainfall and where selective cutting has been practiced.

Ips beetles, in general, have not been very active, but populations are steadily building up as drought continues in many parts of the South. The small species, Ips avulsus, has been closely associated with the southern pine beetle in Alabama. In several instances this species has been the forerunner of attacks by the southern pine beetle.

SOUTHERN PINE BEETLE

Widely scattered infestations of the southern pine beetle, involving small groups of pines, continue to flare up on Federal and private lands in Alabama. At the moment, however, the situation is improved and may be considered as threatening rather than critical.

The insect is still aggressive on the Talladega and Bankhead National Forests. Ranger-district personnel find new spots of activity during each monthly reconnaissance flight. Persistent control efforts are helping to keep the beetles from spreading on these Forests.

In other parts of Alabama, notably on private lands in the east-central part of the State, small "hot spots" up to a half-acre in size have appeared rather suddenly but usually died out of their own accord.

In early August, an aerial pest detection survey was made over the forested areas of east-central Alabama. In all, an area of approximately 3-1/4 million acres was covered by 845 miles of flight lines, spaced at 6-mile intervals, in 8-1/2 hours of flying. The general situation was definitely improved as compared to that revealed by a similar survey in June. Fifty-six mostly small groups of dead pines were located, but only a few were considered to be active infestations and were within the boundaries of the Talladega National Forest and on private lands southeast of Dadeville.

Most of the infestations observed in June had been controlled or had died out naturally, leaving approximately half-acre patches of dead trees. In a few instances, new and active, but still small, spots had appeared within a half-mile of old neglected infestations. Other dead pines, averaging about 1.3 per square mile, were more or less evenly distributed over the entire flight area. Many of these scattered red-tops were probably lightning-struck and then attacked by Ips beetles.

From past observations in Alabama, it seems likely that the southern pine beetle will become more active during the late fall. Rapid spread, usually involving trees on ten or more acres, may be expected, but these spots will be almost impossible to detect from the air because of the confusion of hardwood coloration. With the approach of freezing weather, the beetles typically disperse to scattered, single trees in which they overwinter.

BLACK TURPENTINE BEETLE

The black turpentine beetle is becoming increasingly destructive in most sections of the South. It is especially prevalent where selective cutting has been done during severe droughts on sites that are low and normally moist. The beetle breeds in fresh-cut stumps and later spreads to standing timber. Death of the trees is usually slow and uncertain, and it is often difficult to decide whether control measures

are necessary. When valuable seed trees become involved, however, the risk is generally great enough to justify precautionary control measures.

Outbreaks requiring salvage and chemical treatment exist on the Sabine, Sam Houston, and Davy Crockett National Forests in Texas, the Kisatchie National Forest in Louisiana, and the Homochitto and DeSoto National Forests in Mississippi.

Infestations involving scattered trees and small groups of trees are general and increasing on private lands in central and southwest Arkansas, east Texas, Louisiana, and Mississippi. Many small control projects are in progress.

IPS ENGRAVER BEETLES

During the early summer months, Ips bark beetles were widely scattered throughout the forests in weakened and lightning-struck trees. Recent reports from east Texas and Arkansas, however, indicate greater activity by these beetles and it is anticipated that they will become increasingly destructive until the arrival of soaking rains.

The importance of the small Ips beetle (Ips avulsus) in triggering the attack of the southern pine beetle was again in evidence in Alabama. This species attacks the crown and upper stem of pines and may be readily overlooked unless the trees are felled and the inner bark examined carefully. Unfortunately, pitch tubes are usually lacking and the crown does not fade noticeably until after the new brood has left. Furthermore, avulsus has been found working alone in the tops of green trees at the tips of finger-like projections from patches of timber infested by the southern pine beetle. Under such conditions it is extremely difficult to detect infested trees in time to control the insects.

MISCELLANEOUS PINE INSECTS

During June and July the pine colaspis beetle (Colaspis pini) severely browned the foliage of pines of various sizes in southern Louisiana and southeast Texas. The beetles chew the edges of needles, causing the foliage to turn red, as if scorched by fire. While the injury is spectacular, the trees soon regain their normal color.

Larvae of the cone moth (Dioryctria amatella) were responsible for conspicuous "flagging" of branch tips of mature longleaf pines in Texas and Louisiana from mid- to late June. The larvae hollow out and

kill twigs and also invade cones. Experiments are under way to find means of protecting pine seed orchards from this pest.

HARDWOOD INSECTS

Since early May, defoliation by the fall webworm (Hyphantria cunea) has been conspicuous on mulberry, persimmon, pecans, gums, and other hardwoods in east Texas, Louisiana, Mississippi, and east-central Oklahoma. Lighter defoliation has occurred in Arkansas and Alabama. The hairy caterpillars became a nuisance by invading homes and business establishments in many areas. The white moths were in flight at night early in July, and another brood of larvae has now matured.

DISEASES

Oak Wilt

A one-day training session on the identification and control of oak wilt was conducted in July at Batesville, Arkansas, by Dr. E. R. Toole, Forest Pathologist. It was attended by about 30 Arkansas State Forestry Commission personnel, Arkansas Plant Board workers, and others.

Since the U. S. Forest Service has been unable to carry on an oak wilt survey in Arkansas this year, the State Plant Board and the State Forestry Commission have made an aerial survey of the two most heavily infected counties, Independence and Sharp. The State Plant Board has been ground-checking old infections and has found additional spread in some of the areas. There are at present 7 known active infection centers in these two counties. Road surveys in Lawrence and Randolph Counties did not disclose any new centers. As in the past, the Plant Board is attempting to cut and poison all infected trees. In some cases, but not in others, this has stopped the spread.

AERIAL FOREST PEST SURVEY OF EAST TEXAS

During the week of July 9, an aerial forest pest detection survey was made over southeast Texas. The survey was accomplished through the active cooperation of private timberland owners, the Texas Forest Service, and the Southern Forest Experiment Station, U. S. Forest Service.

Insect hazard areas were delineated on a priority basis as evidenced by past histories of outbreaks of the southern pine beetle and unusual occurrences of Ips bark beetles and other forest pests.

Each cooperating agency assumed the responsibility for a flight area or a portion of one, and shared in the cost. Foresters employed by the cooperators assisted Southern Forest Experiment Station entomologists in coordinating flight lines with ground points and in locating spots or areas of unusual tree mortality. Foresters inexperienced in this type of survey were instructed on what to look for and how to interpret the significance of their findings. Estimates were made of the number of dead pines per square mile in each of the flight areas.

In all, an area of about 8-1/2 million acres of southeast Texas was covered by 1,750 miles of flight lines in 22 hours of actual flying. The cost of planes and pilots approximated $370.

The pest situation at the time of the survey was remarkably quiet. Twenty-one small spots of dead pines were located, but only two of these appeared to be active. As a precaution, all spots are being ground-checked and it is expected that further information will be available soon.

Other dead pines, many of which had been struck by lightning and then attacked by Ips beetles, averaged 2 per square mile and were rather evenly distributed.

With a few improvements in location of flight lines, it is planned to make similar cooperative surveys each year in Texas, or more frequently over certain areas when conditions warrant. Should an outbreak of the southern pine beetle occur, the same basic plan can be used on a more intensive scale. As a result of this experience, the several cooperating agencies will be familiar with survey procedures and may be brought together in a unified detection and control program should epidemics necessitate emergency action.

TRAINING SESSIONS

Through the cooperation of the Texas Forest Service, 200 Texas foresters, county agents, and timber owners received training on the identification and control of forest insects at a series of meetings held in June. Field trips to infested areas supplemented lectures and discussions. The interest shown at the meetings was very gratifying.

Similar training sessions for Louisiana have been arranged in cooperation with the Louisiana Forestry Commission and will be conducted in different communities on August 28 and 29 and September 25 and 26.

SOUTHERN FOREST INSECT WORK CONFERENCE

On September 11 and 12, southern forest entomologists and others who are interested in forest insect problems will meet at the School of Forestry, University of Georgia, in Athens. An informal program is being arranged to give everyone an opportunity to take part in discussions of insect surveys, control projects and methods, research in progress or needed, and training of men for insect control.

Don't miss this opportunity to learn more about forest insects in the South! Proceedings of the conference will not be published.